



## Evaluation of meteorological factors on sudden cardiovascular death

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### Abstract:

Climatic and seasonal triggering factors have received an increasing attention among risk factors of sudden cardiac death. The relationship between cold weather conditions and ischemic heart disease death is well established. In this study, there were 7450 (4967 males, 2483 females) cardiovascular death cases medico-legally autopsied between 1995 and 2004. In most of the cases (76%) cardiac death occurred at the scene, and 17% had acute ischemic heart disease. In order to examine the relationship between daily maximum, minimum and mean temperature, air humidity, air pressure, wind speed, global radiation and the daily numbers of death cases, statistical analysis were accomplished using correlation coefficients, and Box Whisker-plot diagrams. A significant negative correlation was detected between daily mean temperature and cardiovascular mortality. A remarkable seasonal variation was found. Cold and dry weather may be an important risk factor in bringing on the onset of sudden cardiac death. (C) 2010 Elsevier Ltd and Faculty of Forensic and Legal Medicine. All rights reserved.

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### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Meteorological Factors, Meteorological Factors, Meteorological Factors, Solar Radiation, Temperature

#### Geographic Feature:

resource focuses on specific type of geography

Urban

#### Geographic Location:

resource focuses on specific location

Non-United States

**Non-United States:** Europe

**European Region/Country:** European Country

**Other European Country :** Hungary

# Climate Change and Human Health Literature Portal

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Morbidity/Mortality

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

**Population of Concern:** A focus of content

## **Population of Concern:**

populations at particular risk or vulnerability to climate change impacts

Elderly

## **Resource Type:**

format or standard characteristic of resource

Research Article

## **Timescale:**

time period studied

Time Scale Unspecified

## **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content